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Plant biomass-degrading microbial consortia

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Curriculum Vitae



Diego Javier Jiménez Avella, born 8 February 1985 in Sogamoso, Boyacá (Colombia). He obtained his high school degree in 2001 at the Colegio Cooperativo Reyes Patria. After this, he moved to Bogotá D.C. in order to start his academic training in the Pontificia Universidad Javeriana. In 2007, he obtained his bachelor degree in Industrial Microbiology and his thesis was related with the molecular characterization of nitrogen-fixing bacteria isolated from agricultural soils. Between the 2008 and 2011, he performed his master in sciences (Honoriis Degree - *Magna cum laude*) and was specialized in environmental biotechnology and metagenomics of Andean soils and hot springs. He worked, in that time, in the Colombian Center for Genomics and Bioinformatics from Extreme Environments (GeBiX). In 2011, he worked as a research assistant in the Colombian Corporation of Agricultural Research (Corpoica). He began his PhD research in July 2012 at the University of Groningen (The Netherlands) under the BE-Basic project F7.1.3 “Metagenomic mining of enzymes involved in lignocellulose breakdown – tool development, application and valorization”. At the date, he have around 15 scientific articles published in the most world-relevant journals related with microbial biotechnology, environmental microbiology and microbial ecology. Currently, Diego continues to work at the University of Groningen, now as a postdoctoral researcher.

List of scientific publications (per reviewed) along of the PhD program

1. Cortes-Tolalpa L, **Jiménez DJ**, de Lima Brossi MJ, Falcao-Salles J, van Elsas JD (2016). Different inocula produce distinctive microbial consortia with similar lignocellulose degradation capacity. Accepted in *Applied Microbiology and Biotechnology*.
2. Korenblum E, **Jiménez DJ**, van Elsas JD (2016). Succession of lignocellulolytic bacterial consortia bred anaerobically from lake sediment. *Microbial Biotechnology*. doi: 10.1111/1751-7915.12338.
3. Maruthamuthu M*, **Jiménez DJ***, Stevens P, van Elsas JD (2016). A multi-substrate approach for functional metagenomics-based screening for (hemi)cellulases in two wheat straw degrading microbial consortia unveils novel thermoalkaliphilic enzymes. *BMC Genomics*. 17:86.*equal contributors
4. **Jiménez DJ***, Maruthamuthu M*, van Elsas JD (2015). Metasecretome analysis of a lignocellulolytic microbial consortium grown on wheat straw, xylan and xylose. *Biotechnology for Biofuels*. 8:199.*equal contributors
5. Brossi MJ, **Jiménez DJ**, Cortes-Tolalpa L, van Elsas JD2 (2015). Soil-derived microbial consortia enriched with different plant biomass reveal distinct players acting in lignocellulose degradation. *Microbial Ecology*. PMID: 26487437
6. **Jiménez DJ**, Chaves-Moreno D, van Elsas JD (2015). Unveiling the metabolic potential of two soil-derived microbial consortia selected on wheat straw. *Scientific Reports*. 5:13845.
7. **Jiménez DJ**, Dini-Andreote F, Ottoni JR, de Oliveira VM, van Elsas JD, Andreote FD (2015). Compositional profile of α / β -hydrolase fold proteins in mangrove soil metagenomes: prevalence of epoxide hydrolases and haloalkane dehalogenases in oil-contaminated sites. *Microbial Biotechnology*. 8:604–613.
8. **Jiménez DJ**, Dini-Andreote F, van Elsas JD (2014). Metataxonomic profiling and prediction of functional behaviour of wheat straw degrading microbial consortia. *Biotechnology for Biofuels*. 7:92
9. **Jiménez DJ**, Korenblum E, van Elsas JD (2014). Novel multispecies microbial consortia involved in lignocellulose and 5-hydroxymethylfurfural bioconversion. *Applied Microbiology and Biotechnology*. 98(6):2789-2803.
10. **Jiménez DJ**, Andreote FD, Chaves-Moreno D, Montaña JS, Osorio-Forero C, Junca H, Zambrano MM, Baena S (2012). Structural and functional insights from the metagenome of an acidic hot spring microbial planktonic community in the Colombian Andes. *PLoS One*. 7(12):e52069.